

Remarks/Arguments

The Office Action dated June 11, 2007 has been received and carefully studied.

The Examiner objects to the abstract because it is too short and does not give an exact description of the invention. By the accompanying amendment, an amended abstract has been submitted. No new matter has been added.

The Examiner objects to several informalities in the claims, specifically with respect to claims 2,4, and 6-10. The accompanying amendment corrects these informalities.

The Examiner rejects claims 1-10 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as his invention. The accompanying amendment overcomes this rejection.

The Examiner rejects claims 11 and 12 under 35 U.S.C. §101 because they do not fall within one of the four categories of patentable subject matter. The accompanying amendment cancels these claims.

The Examiner rejects claims 1 and 5 under 35 U.S.C. §102(b) as being anticipated by Engel et al. (U.S. Patent No. 6,115,393). The examiner states that Engel discloses a switch fabric network for creating a packet encapsulating a protocol comprising a protocol encapsulation interface identifier; packet field data; a packet header using said protocol encapsulation interface identifier and packet field data; and a first node adapted to create said packet header and to transmit said packet header to a second node. The applicant has amended the claims to overcome this rejection. Specifically, the newly amended claims require that the encapsulated packet include field packet data, wherein the

field data in conjunction with the number of ports, is used by each downstream switch to determine the path of the packet as it traverses the fabric. Traditional Ethernet switches require a table lookup to determine the appropriate output port.

The Examiner rejects claims 2-4 and 6-12 under 35 U.S.C. §103(a) as being unpatentable over Engel et al. The Examiner admits that Engel does not disclose that the packet field data comprises a credit length, a bit count, a turn pool, an operation, a PID index, an MTU, an EUI or other claimed field data. The examiner then notes that it is obvious to include or any field data to the packet data especially if the packet data field contains reserved bits that are not used and left for the purpose of adding any needed data field that allows adding new features to the packet.

This rejection is respectfully traversed. The existence of unused bit fields alone cannot be sufficient to state that any future use of those bits is obvious. While the use of unused bits to perform additional features is possible and well known, a specific implementation of those bits may still be novel. In the present invention, the fields have been used to create a simple way of routing packets within a fabric comprising a plurality of switches. Each switch is cognizant of its number of ports, and based on that information, and the packet field data of the incoming packet, it can properly route the packet to the next switch or endpoint. The switches do not need to understand the topology of the network to successfully route. Furthermore, the switch need not know any information about the address or identification of its adjacent or distant neighbors. It simply passes the packet along, based entirely on the turn pool and its port count.

Such a routing scheme is not disclosed in Engel. Engel discloses the traditional TCP/IP network protocol, and assumes an Ethernet environment. In contrast, the present claims recite a method of routing a packet through a fabric, wherein the switches use only their number of ports and data from the incoming packet to determine the appropriate output port. The description of this feature is found on pages 3-12. The present invention also allows the destination to create a packet header, using the header from the received packet, that will route a second packet back to the source. The claims have been rewritten to emphasize these novel features of the present invention.

Reconsideration and allowance are respectfully requested in view of the foregoing.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. Frame', written over a horizontal line.

Robert C. Frame

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